

Name: _____

p1105: Factoring when $a = 1$ (v1)

Example: Factor $x^2 + 5x - 24$

Find two numbers whose product is -24 and whose sum is 5 . Focus on finding factor pairs of -24 . Eventually you consider 8 and -3 because $(8)(-3) = -24$. You verify this pair is correct because $(8) + (-3) = 5$. Thus, your answer:

$$(x + 8)(x - 3)$$

1. Factor $x^2 - 5x + 4$

2. Factor $x^2 + 8x + 15$

3. Factor $x^2 - 14x + 45$

4. Factor $x^2 - x - 2$

5. Factor $x^2 + 13x + 36$

6. Factor $x^2 - x - 42$

7. Factor $x^2 + 6x - 16$

8. Factor $x^2 + 3x - 18$

9. Factor $x^2 + 11x + 28$

10. Factor $x^2 - 49$

11. Factor $x^2 - 6x + 5$

12. Factor $x^2 - x - 6$

13. Factor $x^2 + 13x + 40$

14. Factor $x^2 + 4x + 3$

15. Factor $x^2 + 8x - 9$